TIER TWO EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY



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Michigan SARA Title III Program

January 2007

WHAT IS THE TIER TWO REPORT?

- A report required under SARA Title III Section 312 of
- Hazardous substances at a facility that are above the threshold,
- Submitted annually to state and local officials, and
- Made available to the public upon request.

Tier Two

WHO MUST REPORT?

- The <u>owner or operator</u> of a facility
- If required under OSHA to prepare or have available MSDSs for <u>hazardous</u> <u>substances</u> present at the facility,
- If <u>exemptions</u> do not apply,
- And IF the <u>threshold</u> amount or more of a hazardous substance was present at the facility at any time during the past calendar year.

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TIER TWO

OWNER OR OPERATOR

Situation:

Big Manufacturing Facility is owned and operated by BMF Inc.

BMF contracted with Little Asphalt Co to pave all their parking lots.

TIER TWO

OWNER OR OPERATOR

Who should report the asphalt?

- Little Asphalt Co that operates the equipment? or
- BMF that owns the property?

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TIER TWO

HAZARDOUS SUBSTANCES

- Hazardous Substances = all substances for which OSHA requires an MSDS.
- There is <u>NO LIST</u> of these "OSHA" hazardous substances.

TIER TWO

HAZARDOUS SUBSTANCES

- 1. OSHA defines hazardous substance as any substance that is a physical hazard or a health hazard.
- OSHA requires that MSDSs be maintained for each hazardous substance.

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TIER TWO

HAZARDOUS SUBSTANCES

- 3. Water can have an MSDS, but it is not required by OSHA.
- 4. OSHA does not require an MSDS for Hazardous Waste that is subject to RCRA.

Tier Two

EXEMPTIONS

Some OSHA hazardous substances do not have to be reported on the Tier Two report.

→ Pg. 3-2 in Guidebook

"WHAT CHEMICALS ARE EXCLUDED"

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Tier Two

EXEMPTIONS

Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use.

Situation:

A facility purchases sheet metal to manufacture its final product. MSDS is required. Is it exempt?

Tier Two

EXEMPTIONS

Example: Sheet Metal

Sheet metal as purchased is a manufactured item. There is no potential for exposure to the solid metal.

Sheet metal in process is no longer a manufactured item.



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Tier Two

EXEMPTIONS

Example: Sheet Metal

Is there a potential for exposure when the sheet metal is in process?

- Bend
- Grind
- Sheer
- •File
- Braze
- Weld
- Cut with torch



Tier Two

EXEMPTIONS

Example: Sheet Metal

Sheet metal in <u>storage is exempt</u> because it is a solid manufactured item and there is no potential for exposure.

Sheet metal in process might be subject.

If the process results in a potential for exposure, include the weight of the entire sheet in process in the threshold determination.

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Tier Two

EXEMPTIONS

Tier Two Exemptions do NOT apply to:

- Sections 302 & 303 : Emergency Planning Requirements
- Section 304 : Hazardous
 Substance Release Notifications

TIER TWO

THRESHOLD

The amount on site at any given time in storage and in process.

 Threshold for "OSHA" hazardous substances = 10,000 pounds.

Gallons must be converted to pounds. Pg. 3-2

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GALLONS TO POUNDS

FORMULA FOR CONVERSION

Specific Gravity (Relative Density) from MSDS

X

Weight of Water (8.34 lbs per gal)

=

Pounds per gallon of substance

GALLONS TO POUNDS CONVERSION

TEST YOUR UNDERSTANDING

2000 gallon tank of gasoline

Does it meet the threshold?

From MSDS (Pg. 6-19): Specific gravity = 0.72 - 0.75

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GALLONS TO POUNDS

CONVERSION ANSWER

- 1. Calculate lb/gal of gasoline:
- 2. Maximum tank capacity =
- 3. Total weight of gasoline =

TIER TWO

THRESHOLD

RETAIL GAS STATION Thresholds

- gasoline = 75,000 gallons if all stored in compliant USTs
- diesel fuel = 100,000 gallons if all stored in compliant USTs

UST=underground storage tank

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TIER TWO

THRESHOLD

Threshold for Extremely Hazardous Substances (EHS) = the lower of:

- 500 pounds or
- threshold planning quantity (TPQ)

EHSs and TPQs are <u>listed</u>

IER TWO

EXTREMELY HAZARDOUS SUBSTANCES (EHS)

Aggregate all occurrences of an EHS to determine if threshold is met.

Pure form + mixture components* = total EHS

* If > 1% of mixture, or > 0.1% if carcinogen

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TIER TWO

EXTRÉMELY HAZARDOUS SUBSTANCES (EHS)

EXAMPLE

Sulfuric Acid

EHS = yes/no?

TPQ = ____

Tier Two reporting threshold = ____

ΓIER TWO

EXTREMELY HAZARDOUS SUBSTANCES (EHS)

SULFURIC ACID IN INVENTORY

- 6 fork lifts with large lead-acid batteries
- 55 gal drum pure Sulfuric Acid

Total lbs Sulfuric Acid = ?

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TIER TWO

EXTREMELY HAZARDOUS SUBSTANCES (EHS)

55 gallon drum of pure sulfuric acid

Specific gravity (from MSDS) = 1.84

8.34 lb/gal (weight of water)

____ lb/gal sulfuric acid

55 gal x ____ lb/gal = ___lbs sulfuric acid

TIER TWO

EXTREMELY HAZARDOUS SUBSTANCES (EHS)

Lead-acid Batteries

<u>Approximate Calculation</u> based on total battery weight

- lead≅ 2/3 battery weight
- battery acid≅ 1/3 battery weight
- Sulfuric Acid≅ 1/3 battery acid weight

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TIER TWO

EXTREMELY HAZARDOUS SUBSTANCES (EHS)

- 6 Batteries
- Each Battery Weighs 600 pounds
- How many pounds of Sulfuric Acid are in the batteries?

TIER TWO

EXTREMELY HAZARDOUS SUBSTANCES (EHS)

SULFURIC ACID IN BATTERIES

Total weight of batteries=

Battery Acid ≅

Sulfuric Acid ≅

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TIER TWO

EXTREMELY HAZARDOUS SUBSTANCES (EHS)

TOTAL SULFURIC ACID

	lbs in the batteries
<u> </u>	lbs pure
	lbs

TIER TWO

EXTREMELY HAZARDOUS SUBSTANCES (EHS)

Required Reporting for 1244 lbs of Sulfuric Acid?

Tier Two -

Because > _____

Emergency Planning Notification (Section 302)

Because > ______

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TIER TWO

THRESHOLD

The threshold for reporting in response to requests is <u>zero</u>

Requests can be made by the SERC, LEPC, Fire Dept with jurisdiction over facility

RECAP...

- The <u>owner or operator</u> reports
- hazardous substances according to OSHA
- if <u>exemptions</u> do not apply,
- and IF the <u>threshold</u> amount is ever on site.

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RECAP...

- OSHA Hazardous Substance <u>threshold</u> = 10,000 pounds
- Extremely Hazardous Substance <u>threshold</u> = 500 pounds or TPQ (whichever is lower)
- Retail Gas Stations are special ...
- So are Requests ...

TEST YOUR UNDERSTANDING

What is the Tier Two reporting threshold for

- Sulfuric Acid?
- Distilled Water?
- Potassium Cyanide?
- Paint?

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REPORT DUE DATES

Tier Two due MARCH 1ST annually.

See Pg. 1-1 for all SARA Title III report due dates.

If a report is requested by the LEPC, fire dept, or SERC, you have 30 DAYS to submit the report.

TIER TWO REPORT FORMATS

ONLINE or PAPER

THE NEW DATABASE REQUIRES NEW INFORMATION TO HELP EMERGENCY PLANNERS.

Diskette, Email attachment, Old paper form <u>cannot be accepted</u>.

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TIER TWO REPORT FORMATS

New information required:

LEPC

Fire Department

Facility Phone Number

Mailing Address

Latitude-Longitude (online only)

Email address (online only)

Actual amount of chemical

TIER TWO REPORT FORMATS

New information allowed:

Mixture components

More than 6 locations (online only)

Additional emergency contacts

Additional phone numbers (online only)

Electronic Attachments (online only)

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TIER TWO REPORT FORMATS

Access to the ONLINE program and the new PAPER form:

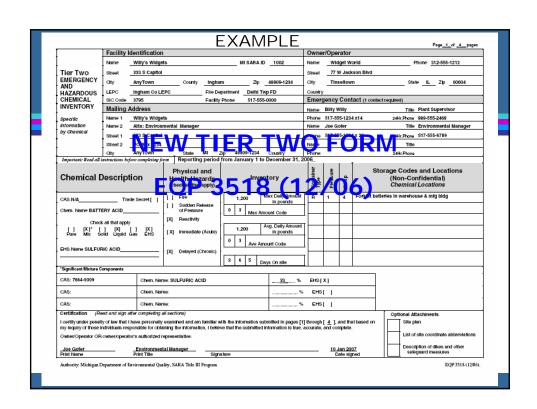
www.michigan.gov/deqsara

- Hazardous Chemical Inventory link
- Tier Two Report link

TIER TWO REPORT PAPER

New PAPER form available as a pdf or in Word.

New paper report EXAMPLE: Pg. 3-9



Tier Two	Facility In	dentification						0	wner/C	pera								
EMERGENCY	Name	Willy's Widgets	8		мі	I SARA ID	1002	N	sme	Widg	et Wo	1d			Phor	e 312-5	55-1212	
AND HAZARDOUS	Street	333 S Capitol						SI	reet	77 W	Jacks	on Blvd			_			
CHEMICAL	City	AnyTown	Or Or	unty Ingham		ZIp	48909-123	84 CI	ty -	Tinse	eltown				State	IL Z	p 60604	-
INVENTORY	LEPC	Ingham Co LEI	PC	Fire Depa	artment	Delhi Tw	p FD	C	cuntry									
Specific Information	[
by Chemical	SIC Code			Facility Pi			555-0000											
Important: Read all i	instructions befo	ore completing for	w Repo	rting period fr	om Janu	uary 1 to I	December	r 31, 20 <u>06</u> T	<u> </u>									
	Confid		cation [Informati		heet al Nam	ıe		Container	Pressure	Temp	s	_	(Co	nfide		ations	
7664-93-9			s	ULFURIC ACID					Е -	1	4	55 GAL D	RUM -	STORE	BM, W	SIDE IN	WAREHO	
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TIER TWO REPORT ONLINE

ONLINE TIER II MANAGER™

Disclaimer: Michigan has requested changes to TIER II MANAGER™ that do not appear in these screen shots, but that will appear in the online program.

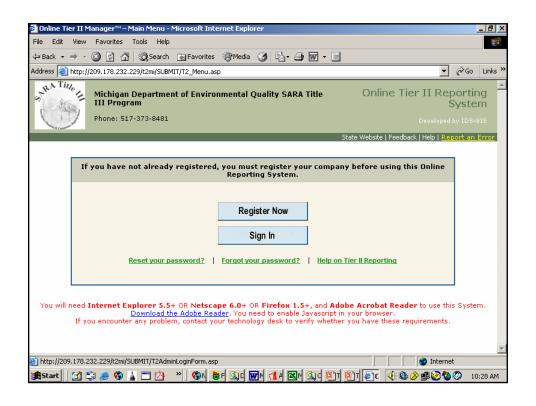
ONLINE REPORTING

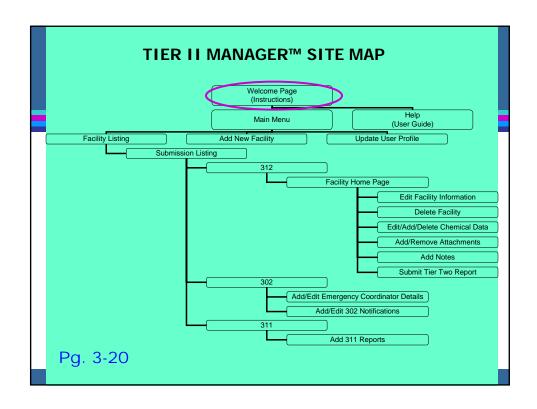
The first time you log in:

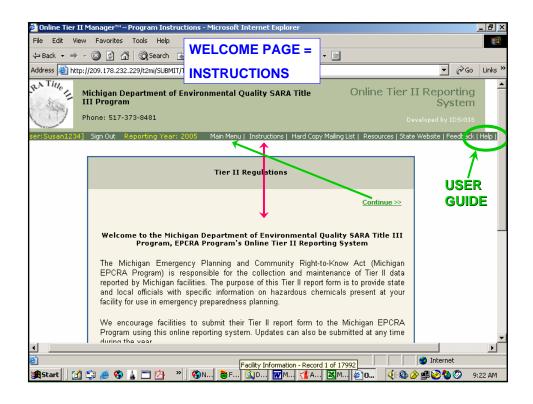
REGISTER NOW if your facility has never submitted a Tier Two report.

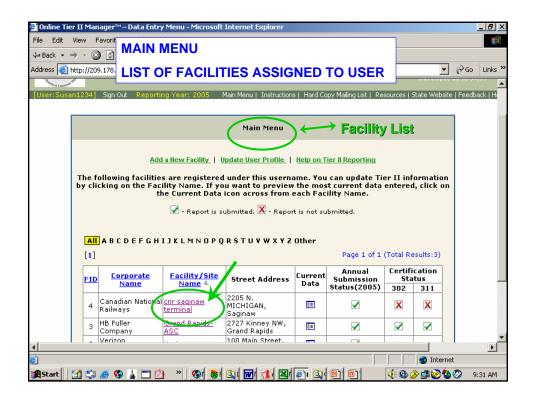
SIGN IN if you have received a username and password from us.

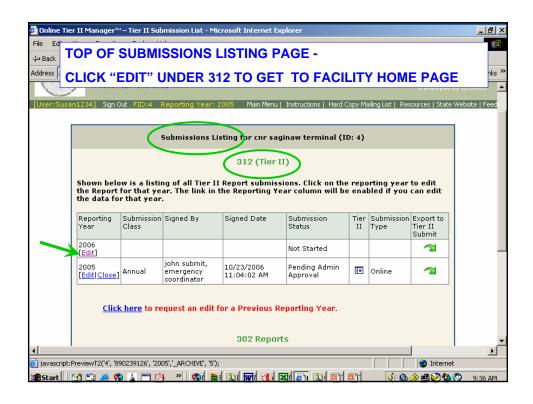
If you have reported in the past but did not get a username and password - Call us!

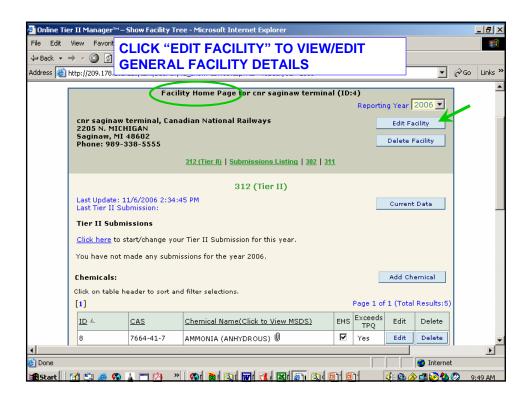


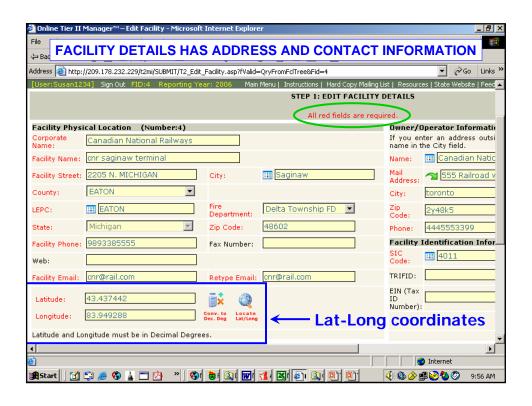






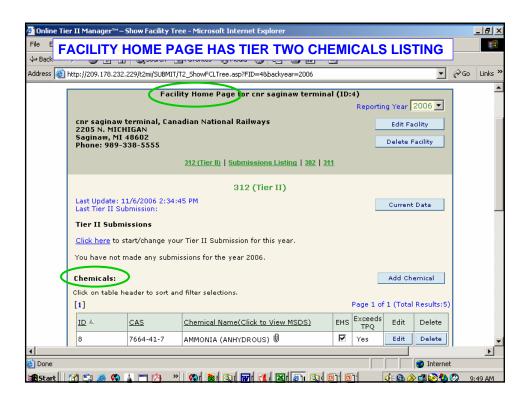


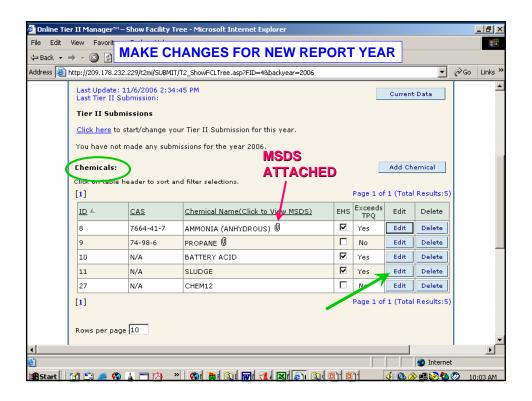


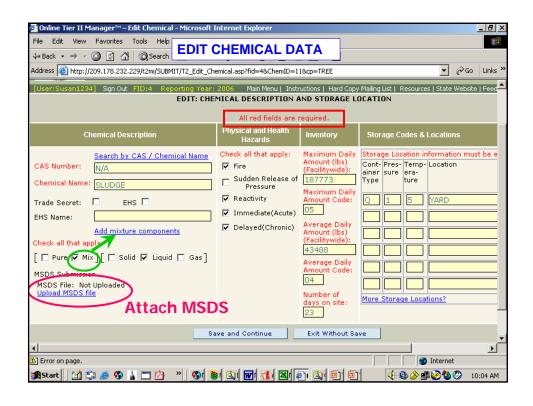


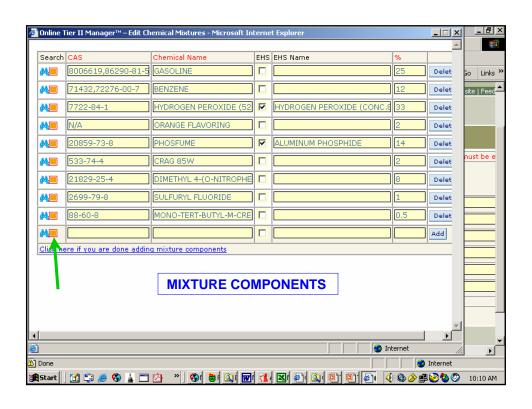
	New form ha					
Facility I	dentification					
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Street	333 S Capitol					
City	AnyTown	County	Ing	nam	Zip	48909-1234
LEPC	Ingham Co LEPC		Fire	Departn	nen Delhi Tv	vp FD
SIC Code	3795		Faci	ity Phor	ne 517-555	-0000
Mailing A	Address					
Name 1	Willy's Widgets					
Name 2	Attn: Environment	al Manager				
Street 1	333 S Capitol	E-18 TEVE				
Street 2	PO Box 1234					
City	AnyTown	State	МІ	Zip	48909-1234	Country
structions bej	fore completing form	Reporting	g perio	d fron	n January 1 to	December 31, 2
		Physical	and			

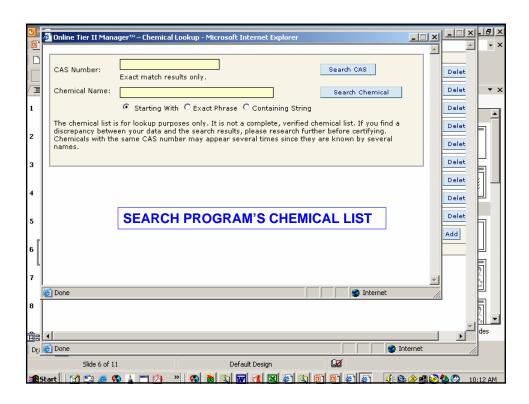
		s some of the a allowed in onlir	
Owne	r/Operator		
Name	Widget World	F	Phone 312-555-1212
Street	77 W Jackson Blvd		
City	Tinseltown	Stat	e IL Zip 60604
Country			
Emer	gency Contact (1 co	ontact required) (2 co	ntacts recommended)
Name	Billy Willy	Title	Plant Supervisor
Phone	517-555-1234 x14	24Hr.Phone	989-555-2468
Name	Joe Gorer	Title	Environmental Manager
Phone	517/555-1234 x 23	24Hr.Phone	517-555-6789
Name	×	Title	
Phone		24Hr.Phone	
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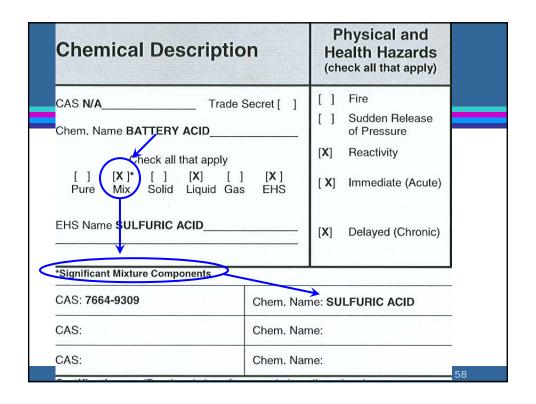


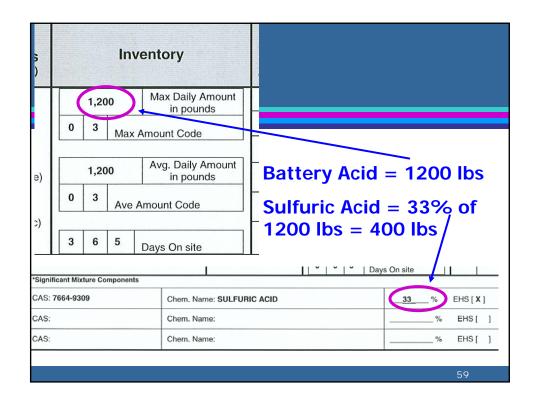


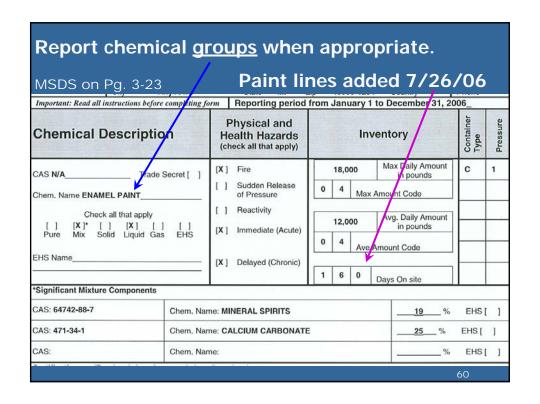






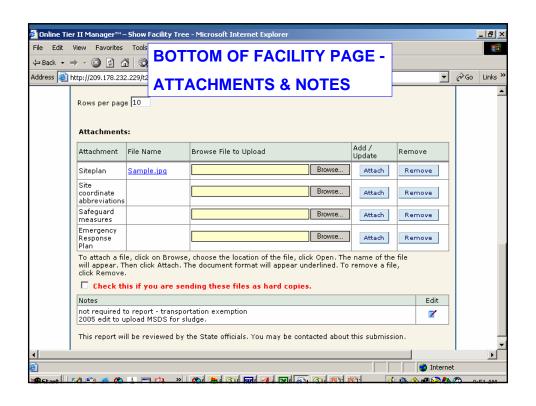


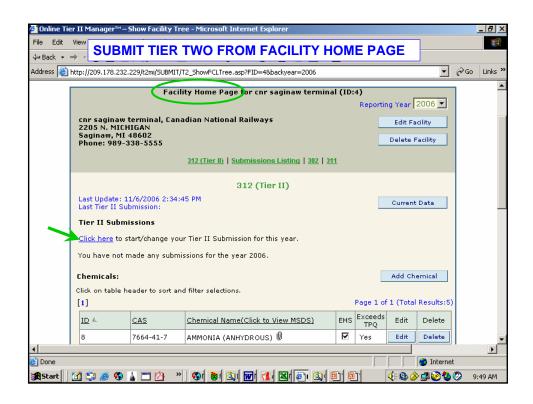


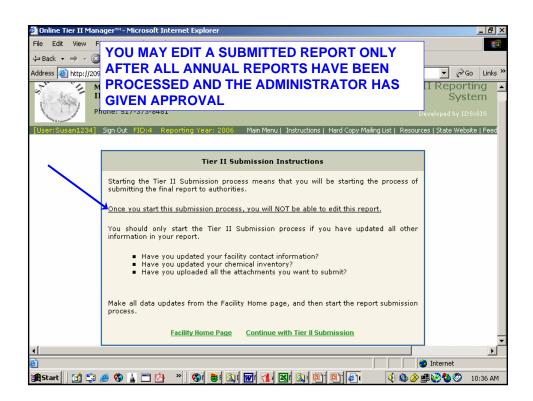


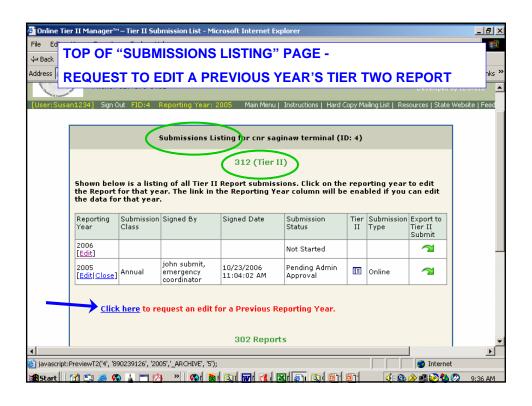
CONFIDENTIAL STORAGE

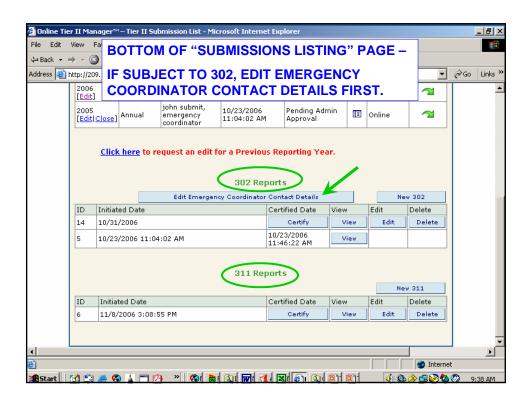
- Online: Check box that says "Confidential"
- Paper copy: submit new Confidential Location Information Sheet along with the Tier Two that has all information except confidential storage codes and locations

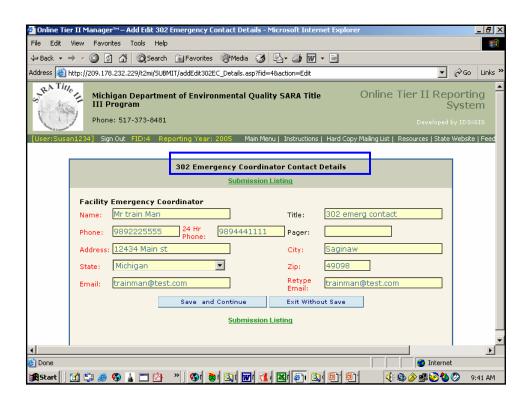


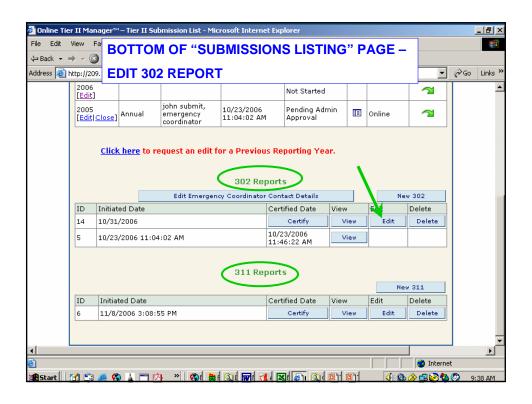


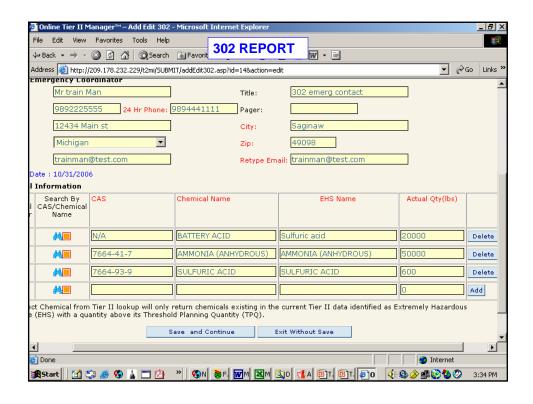


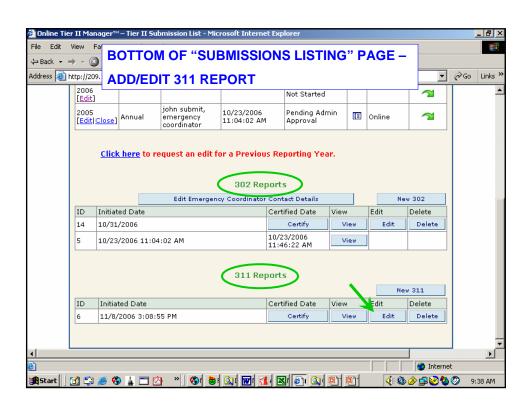


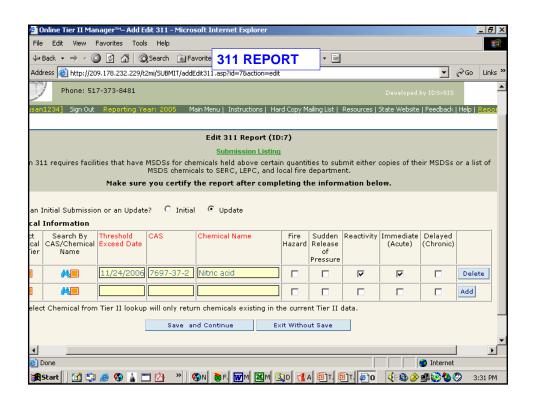


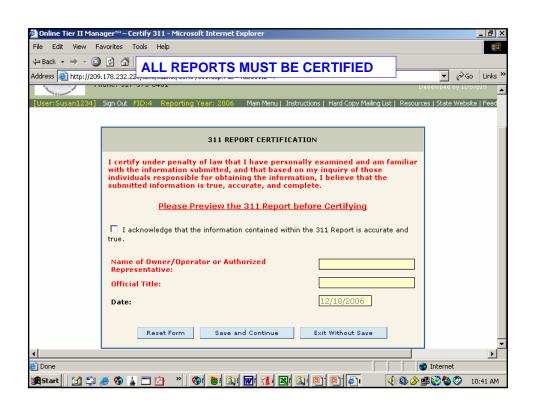












ONLINE REPORTING

ADVANTAGES OF TIER II MANAGER™

- Know what has been entered
- Data checks fewer errors
- Resources (chemical lists, lat-long determination, web links...)
- Update anytime (submit when due)
- Add notes to your report
- Emergency Planners have better information

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TIER TWO REPORT

QUESTIONS?

MICHIGAN SARA TITLE PROGRAM

517-373-8481

<u>WWW.michigan.gov/deqsara</u> deq-ead-sara@michigan.gov

